

Morphometric method for description of ticks of the genus *Hyalomma* (Acari: Ixodidae): *Hyalomma anatolicum* Koch, 1844

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Objective: The species hard tick, *Hyalomma anatolicum* is a vector of the important pathogen agents of both animals and human. This species is the most abundant *Hyalomma* tick in its geographical zone. *Hyalomma anatolicum* is a vector of thileriosis and Crimean Congo Hemorrhagic Fever (CCHF), an animal protozoan and human viral diseases respectively, in Iran and is widely distributed throughout in this country. Some taxonomic characters on this species was introduced but not measured. The purpose of the present investigation was to identify valuable discriminating characters for male specimens of *Hyalomma anatolicum* with the other closely related species by morphometric methods.

Material and Methods: Firstly, the collected tick specimens were identified by several *Hyalomma*s identification keys as *Hyalomma anatolicum*. Totally, nine and three quantitative and qualitative parameters, respectively, was measured. The data measurements were analyzed using SPSS for windows and finally the specimens were drawn by the aid of a drawing tube.

Results: The one way ANOVA test is revealed the presence of significance difference between many quantitative parameters, except lateral groove/scutal length ratio, also all studied regions. The observation of the qualitative parameters shown presence and absence of these characters in all specimens studied.

Conclusion: The amplitude and quantity of morphologic parameters of *Hyalomma anatolicum* suggested that should be considered for correct identification and key preparation of this species in further studies.

Keywords: *Hyalomma anatolicum*, Iran, Morphometric study, Quantitative parameters, Qualitative parameters, Variation.

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